



IES-1085

4 x 802.3af + 4 x 802.3at + 2 GE SFP Managed Switch -40 to 75C, DIN-rail

Overview

LevelOne IES-1085 Industry Ethernet Switch provides 4 802.3af PoE ports & 4 802.3at PoE ports of 10/100Base-TX plus 2 1000Base SFP slots to enable high speed network at mission-critical environment. This device is designed to be mounted on an industry standard DIN-rail, plus the clearly visible status LEDs provide simple monitoring of port link activity. Moreover, the SFP slots support pluggable modules that enabling you to choose from a variety of transceivers.

High Reliability

All components are built to withstand harsh environment applications without compromise where humidity, temperature variation and even shock vibration are concerns, including Electric & Utility, Critical Infrastructure, Transportation and Surveillance Security. This device operates under -40 to 75 Celsius (-40 to 167 Fahrenheit) temperature.

Power over Ethernet

This switch is Power Sourcing Equipment (PSE), and it is fully complied with IEEE 802.3af & 802.3at PoE standard at maximum 15.4W / 30W power budget per port. It helps to save infrastructure wiring costs dramatically by eliminating electric wiring and less UPS needed.

Resilient Ring Network

Supports Ring topology network providing simple installation and ultra fast network recovery performance, less than 15ms. Unlike much complex resilient topology, such as a redundant star, the Ring simplifies the network design and requires less cabling installation. In addition, fast network recovery time helps minimize system downtime.

Management

IES-1085 supports a variety of management features including: CLI via Console or Telnet; Graphic User Interface via Web Browser or Simple Network Management Protocol via SNMP tools. It provides better visibility and management of those critical assets.

Safety

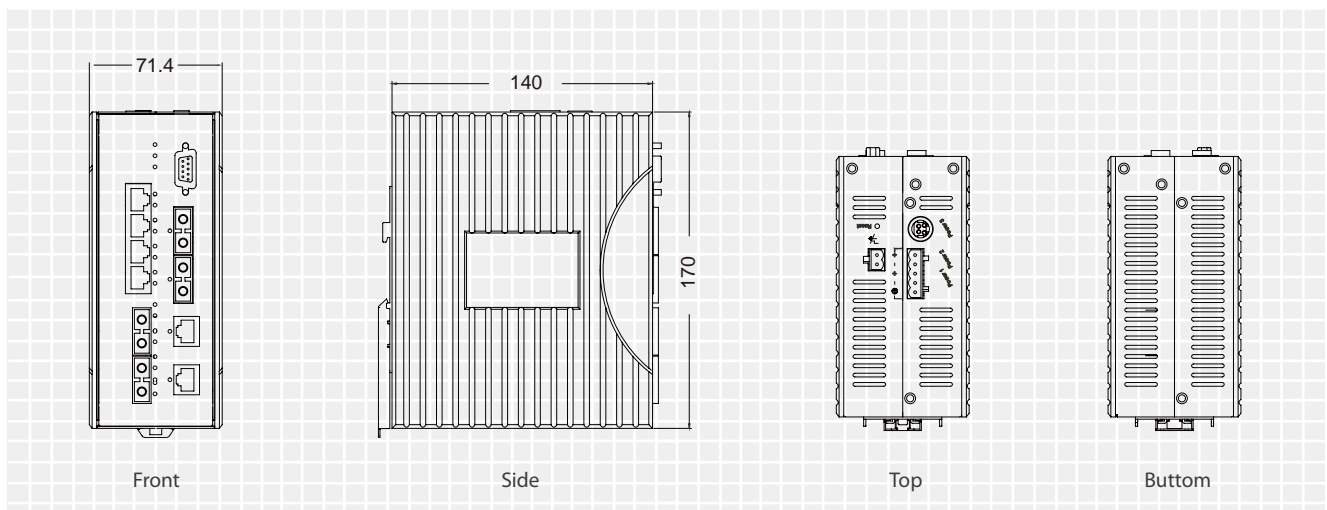
This device has been tested under UL508 standard for Industrial Control Equipment to endurance under test turn on and off 6,000 times while loaded, with no single failure. It's highly reliability and safety measurement to ensure field hardened, especially for the harsh environment.

Features

- Supports PoE Power Sourcing Equipment (PSE)
- PoE control and scheduling
- Supports a-ring and RSTP/MSTP/STP for Ethernet redundancy
- IP Multicast Filtering through IGMP Snooping V1, V2 & V3
- Supports port-based VLAN and IEEE802.1Q VLAN Tagging and GVRP
- IEEE802.1p QoS with four priority queues
- MAC-based trunking with automatic link fail-over
- RS-232 console, Telnet, SNMP V1, V2c & V3, RMON, Web Browser, and TFTP Management
- Supports Command Line Interface in RS-232 Console
- Supports IEEE802.1x Security
- Bandwidth Rate Control
- Per-port programmable MAC address locking
- Up to 24 Static Secure MAC addresses per port
- Port mirroring
- NTP synchronization
- 1000Mbps-Full-duplex, 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- Full wire-speed forwarding rate
- -40°C to 75°C (-40°F to 167°F) operating temperature range, tested for functional operation @ -40°C to 85°C (-40°F to 185°F)

Diagrams

Unit: mm



Specifications

Technology

Standards	<ul style="list-style-type: none">IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX/100BASE-FX, IEEE802.3ab 1000BASE-T, IEEE802.3z 1000BASE-SX/1000BASE-LX, IEEE802.3x, IEEE802.1p, IEEE802.1Q, IEEE802.1w, IEEE802.1x, IEEE802.3af
Forward and Filtering Rate	<ul style="list-style-type: none">14,880pps for 10Mbps148,810pps for 100Mbps1,488,100pps for 1000Mbps
Packet Buffer Memory	<ul style="list-style-type: none">2M bits
Processing Type	<ul style="list-style-type: none">Store-and-ForwardHalf-duplex back-pressure and IEEE802.3x full-duplex flow control
Address Table Size	<ul style="list-style-type: none">8192 MAC addresses

Power

Power Input	<ul style="list-style-type: none">Redundant power inputs: Terminal Block: 47 - 57VDC DC Jack: 47 - 57VDC
Power Consumption	<ul style="list-style-type: none">Device: Max. 15W (without PoE)PoE power budget (depends on power input): 181.6W Max.
PoE Power Output	<ul style="list-style-type: none">Port 1 to 4IEEE802.3af: up to 15.4W/port, 47 - 57VDC.IEEE802.3at: up to 30W/port, 50 - 57VDC
<ul style="list-style-type: none">Supports overload current protectionSupports reverse polarity protection	

Mechanical

Casing	<ul style="list-style-type: none">Metal caseIP30
Dimensions	<ul style="list-style-type: none">65mm (W) x 145mm (D) x 165mm (H) (2.56" (W) x 5.71" (D) x 6.5" (H))
Weight	<ul style="list-style-type: none">1Kg (2.2lbs.)
Installation	<ul style="list-style-type: none">Din-Rail (Top hat type35mm), Wall Mount

Interface

Ethernet Port	<ul style="list-style-type: none">10/100BASE-TX (PoE): 8 or 4 ports100BASE-FX: 0, 2 or 4 portsGigabit: 0, 1 or 2 ports
Console Port	<ul style="list-style-type: none">Port: One DB9 RS-232 port
LED Indicators	<ul style="list-style-type: none">Per Unit: Power Status (Power 1, Power 2, Power 3)Per Port: PoE (Amber) for 10/100TX, 10/100TX, 100FX: Link/Activity (Green), Gigabit: Link/Activity (Green)

Environment

Operating Temperature	<ul style="list-style-type: none">-40°C to 75°C (-40°F to 167°F) Tested @ -40°C to 85°C (-40°F to 185°F)
Storage Temperature	<ul style="list-style-type: none">-40°C to 85°C (-40°F to 185°F)
Ambient Relative Humidity	<ul style="list-style-type: none">5% to 95% (non-condensing)
MTBF	<ul style="list-style-type: none">37.87 years

Regulatory Approvals

ISO	<ul style="list-style-type: none">Manufactured in an ISO9001 facility
Safety	<ul style="list-style-type: none">UL508
EMI	<ul style="list-style-type: none">FCC Part 15, Class AEN61000-6-4<ul style="list-style-type: none">EN55022EN61000-3-2EN61000-3-3
EMS	<ul style="list-style-type: none">EN61000-6-2<ul style="list-style-type: none">EN61000-4-2 (ESD Standards) Contact: + / - 6KV; Criteria B Air: + / - 8KV; Criteria BEN61000-4-3 (Radiated RFI Standards) 10V/m, 80 to 1000MHz; 80% AM Criteria AEN61000-4-4 (Burst Standards) Signal Ports: + / - 4KV; Criteria B D.C. Power Ports: + / - 4KV; Criteria BEN61000-4-5 (Surge Standards) Signal Ports: + / - 1KV; Line-to-Line; Criteria B D.C. Power Ports: + / - 0.5KV; Line-to-Earth; Criteria BEN61000-4-6 (Induced RFI Standards) Signal Ports: 10Vrms @ 0.15 - 80MHz; 80% AM Criteria A D.C. Power Ports: 10Vrms @ 0.15 - 80MHz; 80% AM Criteria AEN61000-4-8 (Magnetic Field Standards) 30A/m @ 50, 60Hz; Criteria A
Environmental Test Compliance	<ul style="list-style-type: none">IEC60068-2-6 Fc (Vibration Resistance) 5g @ 10 - 150Hz, Amplitude 0.35mm (Operation/Storage/Transport)IEC60068-2-27 Ea (Shock) 25g @ 11ms (Half-Sine Shock Pulse; Operation) 50g @ 11ms (Half-Sine Shock Pulse; Storage/Transport)IEC60068-2-32 Ed (Free Fall) 1M (3.281ft.)

Order Information

IES-1085 - 4 x 802.3af + 4 x 802.3at + 2 GE SFP Managed Switch -40 to 75C, DIN-rail

Package Contents

IES-1085

CD Manual / Utility

Quick Installation Guide

Optional Accessories

SFP-4200 - 1.25G MMF SFP Transceiver (550m, 850nm, -20 to 85C)
SFP-4210 - 1.25G SMF SFP Transceiver (10km, 1310nm, -40 to 85C)
SFP-4240 - 1.25G SMF SFP Transceiver (40km, 1310nm, -40 to 85C)
SFP-4270 - 1.25G SMF SFP Transceiver (70km, 1550nm, -40 to 85C)
SFP-4310 - 1.25G BIDI SMF SFP Transceiver (10km, 1310nm, -40 to 85C)
SFP-4320 - 1.25G BIDI SMF SFP Transceiver (10km, 1550nm, -40 to 85C)

SFP-4330 - 1.25G BIDI SMF SFP Transceiver (20km, 1310nm, -40 to 85C)
SFP-4340 - 1.25G BIDI SMF SFP Transceiver (20km, 1550nm, -40 to 85C)
SFP-4350 - 1.25G BIDI SMF SFP Transceiver (40km, 1310nm, -40 to 85C)
SFP-4360 - 1.25G BIDI SMF SFP Transceiver (40km, 1550nm, -40 to 85C)
SFP-4370 - 1.25G BIDI SMF SFP Transceiver (60km, 1310nm, -40 to 85C)
SFP-4380 - 1.25G BIDI SMF SFP Transceiver (60km, 1550nm, -40 to 85C)